BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA INSTITUTO DE FÍSICA

"Ing. Luis Rivera Terrazas"



SEMINARIO SEMANAL "Jesús Reyes Corona"

"Self-nanoemulsifying drug delivery systems (SNEDDS) for advanced therapeutic applications"

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In this talk, I'll address the technology of so-called self-nanoemulsifying drug delivery systems (SNEDDS) stabilized by modified phospholipids for the encapsulation and oral administration of terpenoids with favorable biological activities (anticancer, antiparasitic, antibiotic, antidiabetic, etc.). SNEDDS are nanosystems capable of increasing the bioavailability and bioactivity of hydrophobic drugs. Unfortunately, synthetic surfactants are commonly used for their formulation, which can cause adverse reactions such as irritation, allergies, hypersensitivity, etc. The use of natural origin components capable of stabilizing these systems is essential for their food safety. Phospholipids are completely harmless surfactant molecules that can be structurally manipulated to modify their physicochemical properties and favor SNEDDS formulation. To date, the use of phospholipids to stabilize SNEDDS has not been reported. Modified phospholipids offer a tentative improvement in the self-nanoemulsifying properties of molecules, making them more effective and safer for the oral administration of bioactive terpenoids using SNEDDS technology.

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